

OSPI School Seismic Safety Work Session House Capital Budget Committee January 18, 2022

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OSPI's School Seismic Safety Retrofit Program



*Eastmont High School's seismic reinforcements,
Wenatchee*

- OSPI's newest capital grant program.
- Performs engineering studies and seismic retrofits to high seismic-risk schools as identified by DNR.
- Prioritizes high-risk buildings and districts with limited financial capacity.
- Considers a building's "useful life."
- Steered by a committee of subject matter experts. (Seismologists, Geologists, Engineers).



2020 Supplemental Capital Budget

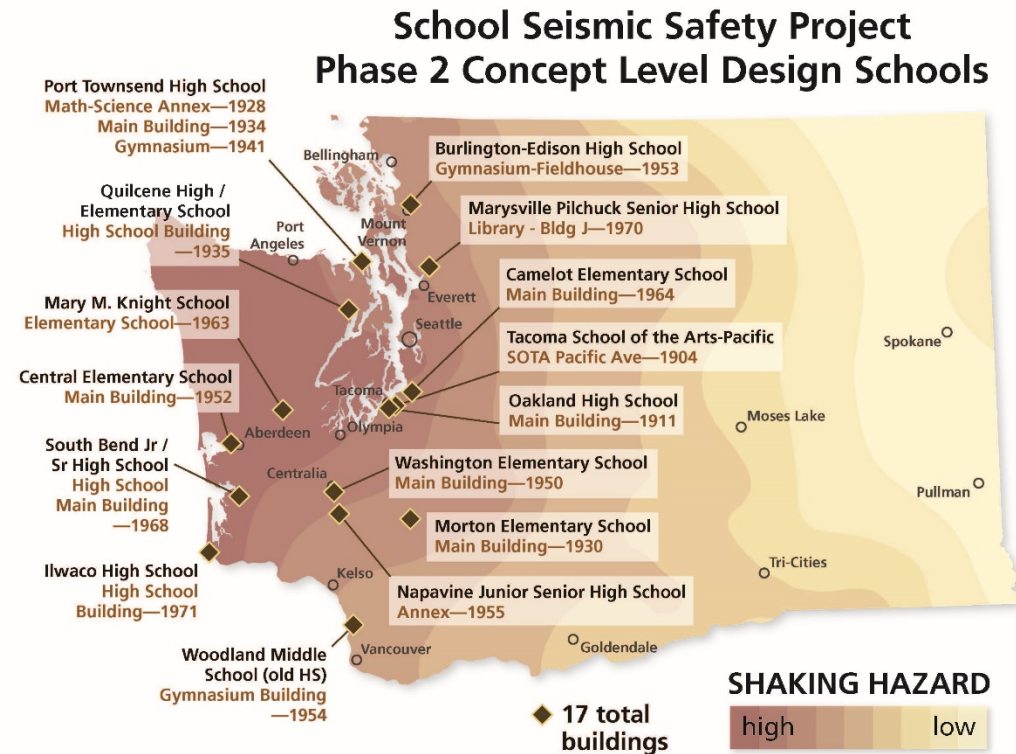
- \$13.24 million provided for retrofits to very high-risk schools (shaded in red).
- North Beach SD: The district is running a capital bond to compliment the \$6M included in the Governor's proposed capital budget. OSPI's seismic committee determined that a retrofit is not appropriate for Pacific Beach ES and recommends using retrofit funding for relocation/replacement.
- Centralia SD: Retrofit complete at Edison ES. OSPI finalizing district reimbursements.
- Boistfort SD: Under design. Highly liquefiable soils discovered, which could impact project cost.
- South Bend SD: Retrofit grant awarded.
- Cosmopolis SD: Planning grant awarded.
- Marysville SD: Planning grant awarded.

School District, School Building, Bldg. Type	Original Date of Construction	ICOS Life Safety Risk Level	Percentage of Building Damaged	Bldg. Gross Area (SF)	Total Upgrade Cost Range		Median Total Cost (millions)
					\$/SF (Total)		
North Beach, Pacific Beach Elementary Gym, Reinforced Masonry	1956	Very High	91%	10,049	\$145 (\$1.46M)	\$273 (\$2.74M)	\$1.83M
Centralia, Edison Elementary, Main Bldg, Unreinforced Masonry	1918	Very High	83%	31,520	\$86 (\$2.70M)	\$160 (\$5.05M)	\$3.37M
South Bend, South Bend Jr/Sr HS Koplitz Field House, Reinforced Masonry	1950	Very High	80%	16,254	\$63 (\$1.03M)	\$119 (\$1.93M)	\$1.29M
Boistfort, Boistfort Elementary Gym, Reinforced Masonry	1963	Very High	76%	14,530	\$60 (\$910K)	\$113 (\$1.71M)	\$1.14M
Cosmopolis, Cosmopolis Elementary, Main Bldg, Wood Framed	1960	Very High	72%	30,460	\$100 (\$3.03M)	\$187 (\$5.69M)	\$3.8M
Marysville, Totem Middle School Main Bldg, Reinforced Masonry	1966	Very High	66%	22,384	\$66 (\$1.45M)	\$123 (\$2.72M)	\$1.81M
Grand Coulee Dam, Lake Roosevelt K-12 CTE Bldg, Steel Light Frame	1955	High	60%	46,336	\$3.10 (\$142K)	\$5.70 (\$266K)	\$177K
White Salmon Valley, Columbia HS Gym, Precast Concrete Shear Wall	1970	High	49%	33,246	\$37 (\$464K)	\$70 (\$869K)	\$580K
Coupeville, Coupeville High School Gym, Reinforced Masonry	1981	Moderate	44%	10,000	\$22 (\$216K)	\$40 (\$404K)	\$269K
Naches Valley, Naches Valley HS Main Bldg, Reinforced Masonry	1979	Moderate	33%	85,173	\$22 (\$1.07M)	\$42 (\$2.01M)	\$1.34M
Dayton, Dayton High School Gym, Steel Light Frame	1966	Moderate	32%	27,152	\$2 (\$50K)	\$3.50 (\$95K)	\$63K
Carbonado, Carbonado Historical School 19, Gym, Wood Framed	1936	Moderate	31%	5,700	\$110 (\$593K)	\$206 (\$1.11M)	\$740K
Spokane, Adams Elementary School Main Building, Unreinforced Masonry	1910	Low	16%	27,300	\$42 (\$1.14M)	\$78 (\$2.14M)	\$1.43M
Very High-Risk Median Cost:	\$13,240,000.00						
High-Risk Median Cost:	\$757,000.00						
Moderate-Risk Median Cost:	\$2,412,000.00						
Low-Risk Median Cost:	\$1,420,000.00						



2021/2023 Biennial Capital Budget

- \$40 million provided to retrofit the most high-risk schools identified by DNR's Phase 2 *School Seismic Safety Report*.
- Funded OSPI's Study & Survey Enhancement allowing OSPI to collect school building structural data whenever a district utilizes state funding.
- OSPI's School Seismic Safety Committee determines the order of consideration, and awards grants to schools determined to be the highest risk.
- School Seismic Safety Committee currently reviewing project priority list.



OSPI's 2022 Seismic Safety Budget Request

- \$8,561,000 requested to complete the six seismic retrofit installations that received funding in 2020.
- Without funding OSPI cannot complete retrofits at Cosmopolis ES & Marysville Totem MS.
- Additional funding responds to the discovery of highly-liquefiable soils at Pacific Beach ES.
- Highly liquefiable soils discovered at Boistfort ES.



Centralia's Edison Elementary received the state's first school seismic retrofit grant.



Schools in Tsunami Inundation Zone

Challenges Facing Coastal Schools:

- Inability to pass a capital levy or bond.
- Low property values.
- Communities within a tsunami inundation zone.
- Lack of dedicated staff to pursue federal funding.
- Highly liquefiable-soils.
- Highest levels of peak ground acceleration.



K-12 Seismic Hazards

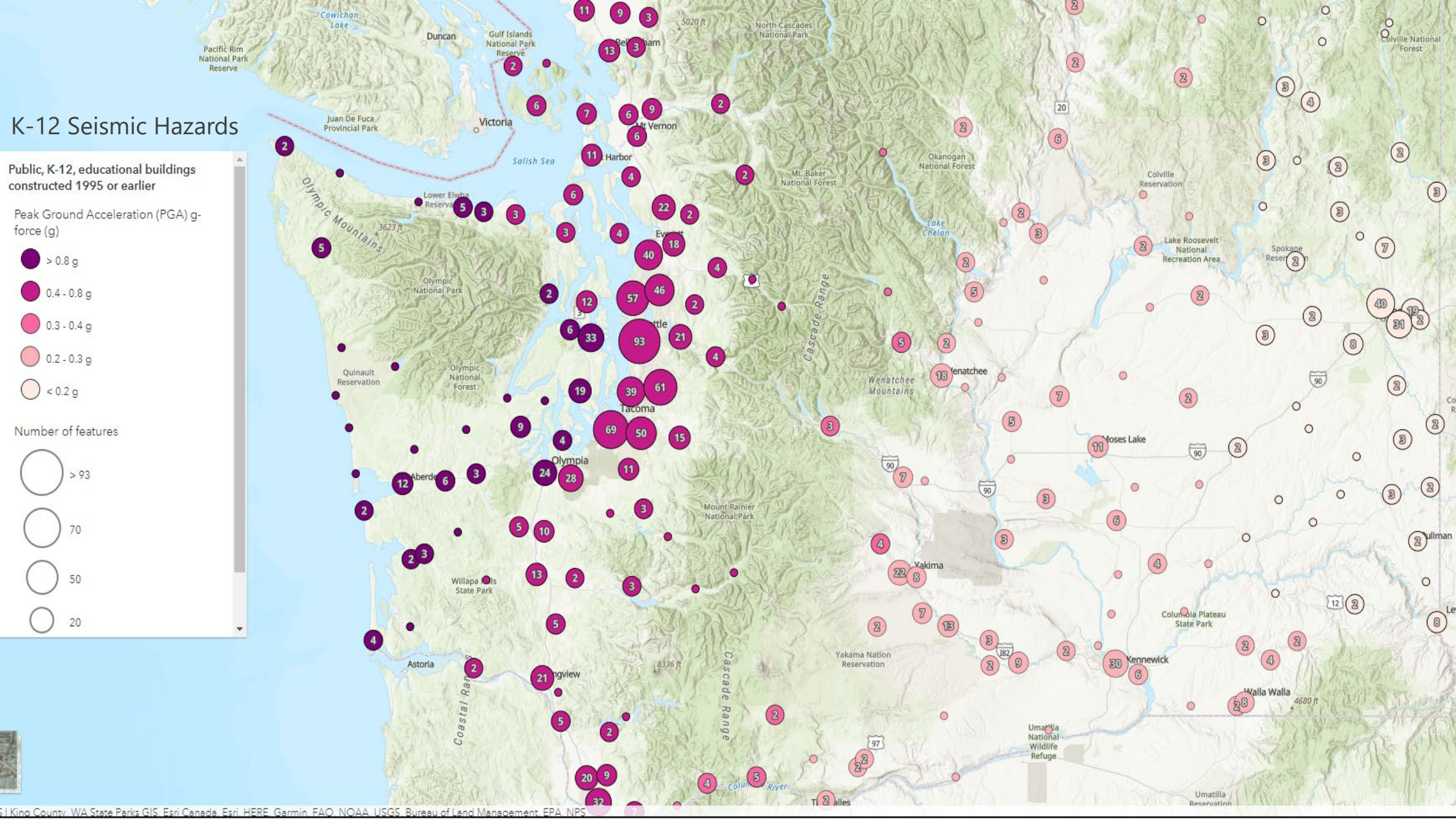
Public, K-12, educational buildings constructed 1995 or earlier

Peak Ground Acceleration (PGA) g-force (g)

- > 0.8 g
- 0.4 - 0.8 g
- 0.3 - 0.4 g
- 0.2 - 0.3 g
- < 0.2 g

Number of features

- > 93
- 70
- 50
- 20



The Limitations of SCAP

- Most school districts have no ability outside of SCAP to claim state funding for a seismic retrofit.
- When school districts cannot raise local funding and the state does not offer funding, inequities become visible.
- Changes to the School Construction Assistance Program (SCAP) will not solve this problem for SCAP-ineligible school districts (that cannot pass bonds or levies).
- Solutions are needed for our most vulnerable schools on the coast & peninsula.



If passed, Proposition 1 (a 25-year bond measure) will allow North Beach SD to acquire land and construct a new elementary school out of the reach of a tsunami.



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Moving Forward – Solutions for Our Schools

- OSPI believes a program structured like the Small District Modernization Grant Program (SB 5572 2019/20) is the best way to achieve seismic safety for small school districts.
- Districts that pass capital bonds and levies will be eligible for additional state funding under SCAP.
- Seismic retrofits are much more cost effective when performed during a major school modernization.
- Relocation or vertical evacuation may be the best option for older school buildings or buildings with a poor condition rating inside of a tsunami inundation zone.
- Solutions are needed for SCAP-ineligible school districts.



A seismic retrofit reinforcement beam inside the Old Capitol Building, Olympia.



Thank you. Questions?

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